

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re the application of:	)	
	)	Before the Examiner
Schleppenbach, et al.	)	
	)	Olujimi Adesanya
Serial No. 10/579,377	)	
	)	Art Unit 2626
Filing Date: May 12, 2006	)	
	)	Date: July 22, 2010
<b>COMMUNICATION SYSTEM AND</b>	)	
<b>METHODS</b>	)	

MAIL STOP Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPELLANT'S REPLY BRIEF**

Sir:

Responsive to the Examiner's Answer dated May 27, 2010, Appellants hereby submit  
this Reply Brief.

**STATUS OF CLAIMS**

Pending: Claims 1-5 and 7-21

Canceled: Claim 6

Allowed: None

Rejected: Claims 1-5 and 7-21

Withdrawn: None

Appealed: Claim 17

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL****A. Claim 17**

Claim 17 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,572,625 (Raman) in view of LargePrint Publication “JAWS for Windows” (LargePrint).

## **ARGUMENT**

### **Rejection of Claim 17 under 35 U.S.C. §103(a)**

Claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,572,625 (Raman) in view of LargePrint Publication “JAWS for Windows” (LargePrint).

#### **1. Raman and LargePrint do not disclose or suggest the patentable subject matter of claim 17.**

Claim 17 recites in part that “the audio output stream is settable to different levels of verbosity.” (Emphasis added). Appellants respectfully submit that such limitations are neither taught, disclosed nor suggested by the cited references and include distinct advantages thereover.

The subject matter of claim 17 is disclosed at page 10, line 31 through page 11 line 4 of the present specification:

Verbosity Controls--Different levels of verbosity (e.g. Maximum Verbosity, Verbose, Brief, and SuperBrief) are disclosed, each of which having a set of rules that lengthens or shortens the audio stream depending upon how much information the reader requires or desires. For example, "BEGIN FRACTION" is shortened to "B-FRAC" at the lower verbosity settings.

As acknowledged by the Examiner in the Final Office Action dated June 8, 2009, Raman does not disclose that an audio output stream is settable to different levels of verbosity, as recited by claim 17.

The Examiner cites LargePrint as disclosing that an audio output stream is settable to different levels of verbosity.

#### **i. LargePrint does not disclose different verbosity levels, as the term “verbosity” is defined by the present specification.**

It is an axiom of claim construction in the USPTO that, although claim terms are given their broadest reasonable meaning, claim terms are at the same time interpreted in view of their use in the specification. “[A]s an initial matter, the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant’s specification.” In re Morris, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

Appellants submit that LargePrint does not disclose that an output stream is settable to different levels of verbosity, as “verbosity” is defined in the present specification. More

particularly, the present specification defines “verbosity” as the degree to which existing words in an established output stream are abbreviated. As an example, in the present specification, “‘BEGIN FRACTION’ is shortened to ‘B-FRAC’ at the lower verbosity settings.” Although words may be abbreviated according to the present invention, no words are entirely edited out or deleted from the output stream. In contrast, LargePrint does indeed disclose editing out or deleting entire words based on the verbosity setting. Specifically, LargePrint discloses adjusting “how much and what information is read” (Second full paragraph at the bottom of page 1). LargePrint does not specifically disclose a verbosity setting defined as the degree to which words are abbreviated, as is the case in the present invention. Appellants point out that the LargePrint reference is a product review by a third party, and thus it is not surprising that the third party may carelessly choose an inaccurate term such as “verbosity” instead of a more accurate term such as “level of content.”

**ii. the verbosity (i.e., level of content) settings of LargePrint are inapplicable to communicating technical notations, which the present invention is directed to.**

The preamble of claim 1, from which claim 17 depends, recites communicating technical notation to a user. The term “technical notations” as used in the application refers to information that is or includes special notations and symbols such as mathematical and scientific formulae and equations (Page 1, lines 18-21 of the present specification). Claim 1 further recites “converting the notation into data” and processing the data. Making adjustments to levels of content (i.e., adjusting what information is included) as taught by LargePrint is particularly inapplicable to the audible reading of mathematical equations and other technical notations, which the present invention is directed to. That is, every piece of information must be included in an equation or formula or else the meaning of the equation/formula is entirely changed. Conversely, abbreviations in the reading of equations/formulae are acceptable because no information is lost by abbreviating, and it is in this context that “verbosity” is defined as a level of abbreviation of words in the present invention. In fact, Appellants submit that no other meaning of “verbosity” makes sense in the context of communicating technical notations. Specifically, changing a level of verbosity by adjusting a level of content (i.e., including or entirely leaving out pieces of information) as taught by LargePrint could not be applied to the communication of technical notation as recited the claims of the present invention.

Accordingly, LargePrint cannot be properly combined with the MATHSPEAK reference, which the Examiner relies upon to disclose the subject matter of claim 1, from which claim 17 depends.

**iii. LargePrint does not disclose that an output stream is settable to different levels of verbosity, as recited by claim 17.**

Appellants respectfully submit that LargePrint does not disclose that an output stream is settable to different levels of verbosity, as recited by claim 17. That is, LargePrint does not alter or adjust an existing, or already established output based upon a level of verbosity. Rather,

LargePrint determines what words are to be included in the output stream based upon verbosity adjustments by the user. LargePrint uses the verbosity adjustment to set a threshold for deciding which words, phrases and sentences are to be included in the output. However, the method of LargePrint does not change the verbosity of an already established output stream itself, and does not change the verbosity of individual words that make up an output stream.

Claim 17 recites that “the audio output stream is settable to different levels of verbosity”, which, in view of page 10, line 31 through page 11 line 4 of the present specification, requires that the verbosity of individual words within an audio output stream be adjustable or “settable.” “For example, ‘BEGIN FRACTION’ is shortened to ‘B-FRAC’ at the lower verbosity settings.” (page 10, line 31 through page 11 line 4 of the present specification). LargePrint, in contrast, discloses that individual words in a document are not adjusted, but rather entire words are deleted or edited out.

Per claim 17, the verbosity of the audio stream itself is settable. That is, the content in the audio stream is fixed, but the verbosity of the audio stream in conveying the fixed content is settable. In LargePrint, in contrast, the verbosity of an output stream is not settable, but rather verbosity is used as a filter (i.e., a verbosity threshold is set) to determine what content is included in the output. Once the words to be included in the output are established, the verbosity (i.e., the level of abbreviation of individual words) cannot be adjusted and is not settable.

#### **iv. LargePrint teaches away from the invention of claim 17.**

LargePrint actually teaches away from setting the verbosity of an output stream to different levels. Specifically, LargePrint teaches away from selecting words for inclusion in the output list based on whether the words are abbreviated. Rather, LargePrint teaches that words are selected for inclusion in the output based on how much information is desired. However, if two streams have identical content but the words in the streams have different levels of verbosity (e.g., if the words in one stream are abbreviations of the words in the other stream), then LargePrint teaches that the two streams should be considered on an equal basis for inclusion in the final output stream. Thus, the “verbosity” adjusted by the user in LargePrint actually sets the level of content that is to be included in the output. However, the “verbosity” adjustment by the user of LargePrint does not affect the verbosity, or level of abbreviation, of the words of the output stream. Rather, in LargePrint, abbreviated words (low verbosity) are treated as being equal to unabbreviated words (high verbosity) when being considered for inclusion in the output. Thus, the term “verbosity” as used in LargePrint is a misnomer. It could more accurately be referred to as a “content level setting.” This contrary to the present invention in which the verbosity setting establishes what level of abbreviation is included in the output stream. In LargePrint, the verbosity setting has no effect on what level of abbreviation is included in the output. Although LargePrint mischaracterizes level of content as verbosity, LargePrint does not disclose setting a level of true verbosity. Further, LargePrint does not disclose setting an established output stream to different levels of verbosity.

Accordingly, LargePrint actually teaches away from setting an output stream to different levels of verbosity, as recited by claim 17.

**2. Raman and LargePrint do not disclose or suggest the patentable subject matter of claim 1, from which claim 17 depends.**

Claim 1, from which claim 17 depends, recites in part “a lexicon to convert the inputted data into outputted data, the lexicon including reserved words, each of the reserved words preceding a respective data element and independently indicating a level of the respective data element within a hierarchy of subscripts and superscripts relative to a base level”. (Emphasis added). Appellant submits that such limitations are neither taught, disclosed nor suggested by Raman and LargePrint, alone or in combination, and include distinct advantages thereover.

Both Raman and LargePrint are completely silent as to a lexicon including reserved words each independently indicating a level of subscripts and superscripts relative to a base level. Such subject matter is disclosed at page 9, line 7 through page 10, line 9 of the specification. Thus, neither Raman nor LargePrint discloses or suggests a lexicon to convert inputted data into outputted data, with the lexicon including reserved words, and each of the reserved words preceding a respective data element and independently indicating a level of the respective data element within a hierarchy of subscripts and superscripts relative to a base level, as recited by claim 1. Because claim 17 depends from claim 1, claim 17 also includes these limitations of claim 1. Although the Examiner cites MATHSPEAK (Page 16 of the Examiner’s Answer) as disclosing the limitations of claim 1, Appellants point out that MATHSPEAK was not cited against claim 17, which includes the limitations of claim 1. Thus, the Examiner has not made a proper rejection of claim 17. Further, the improper rejection has deprived Appellants of a chance to address the propriety of combining MATHSPEAK with Raman and LargePrint. Particularly, Appellants submit that MATHSPEAK could not be properly combined with LargePrint because the “verbosity” adjustments of LargePrint in which information may or may not be left out cannot be applied to the reading of mathematical equations as taught by MATHSPEAK. This is true because equations are entirely changed when information is left out entirely, as discussed in section 1. ii. above.

**ADVANTAGES**

The invention as recited by claim 17 includes distinct advantages over the cited references. By reserved words (e.g., BEGIN FRACTION) preceding a respective data element and independently indicating a level of the respective data element within a hierarchy of subscripts and superscripts relative to a base level, the user can deduce exactly what level of super- or sub-script that he is currently hearing without having to wait for subsequent context cues (page 10, lines 3-9 of the present specification). However, an inherent disadvantage of listening to spoken text or technical notations is that the listener is not able to adjust the speed of the reading to his desired speed, as can be done when reading visually. But by being able to set a level of verbosity for such reserved words, the user may decrease the verbosity as he becomes

more familiar with the reserved words, thereby increasing the efficiency and speed of what may otherwise be a cumbersome, repetitive and frustrating listening experience.

**CONCLUSION**

For all of the above reasons, claim 17 is in condition for allowance.

In view of the remarks above, Appellant respectfully submits that claim 17 is in condition for allowance and respectfully requests the Honorable Board of Appeals to reverse the Examiner's rejection of claim 17 from the Office Action.

Respectfully submitted,

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Date

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